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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/151,670	09/11/1998	STEVEN B. KAUFMAN	KAUFMAN-9-7	8185

7590 12/18/2002

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EXAMINER

HAROLD, JEFFEREY F

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/151,670	KAUFMAN ET AL.
Examiner	Art Unit	
Jefferey F. Harold	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-25 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). ____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. ***Claims 1-3, 12, 16 and 18-20*** rejected under 35 U.S.C. 102(b) as being anticipated by Acree (United States Patent 5,099,514).

Regarding **claim 1**, Acree discloses a multipurpose telephone accessory unit. In addition, Acree discloses wherein the telephone accessory unit (10), which reads on claimed “apparatus”, adapts a common telephone for operation as a speakerphone, where a speakerphone is defined as a telephone which has a speaker and microphone for hands free, two-way conversation, comprising:

headset unit (12), which reads on claimed “loudspeaker”,
mouth piece microphone (56), which reads on claimed “microphone”,
telephone accessory unit (10) adapted for removable interfacing to a handset jack of a base of a telephone to adapt the common telephone for operation as a speakerphone,

wherein the telephone accessory is portable for transportation between common telephone, as disclosed at column 1, lines 38-44; column 3, lines 53-56; claim 1 and exhibited in figures 1 and 2.

Regarding **claims 2 and 3**, Acree disclose everything claimed as applied above (see claim 1), in addition Acree discloses a power supply which receives its primary power from an external wall plug type AC/DC transformer through AC/DC transformer jack receptacle. Further, Acree discloses wherein the power supply could also be received from an internal replaceable battery, as disclosed at column 3, lines 7-17 and exhibited in figure 2.

Regarding **claim 12**, it is interpreted and thus rejected for the reasons set forth above in the rejection of claim 1.

Regarding **claims 16 and 18-20** are interpreted and thus rejected for the reasons set forth above in the rejection of claims 1-3 and 12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. ***Claims 4-5 and 7-11*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Acree in view of Arbel (United States Patent 4,912,758).

Regarding **claims 4 and 5**, Acree discloses everything claimed as applied above (see claim 1), however, Acree fails to disclose operating in a half-duplex and full duplex mode. However, the examiner maintains that it was well known in the art to provide for operating in the half-duplex and full duplex mode, as taught by Arbel.

In a similar field of endeavor Arbel discloses a full duplex speakerphone. In addition, Arbel discloses wherein the speakerphone operates in both the half-duplex and full-duplex modes, as disclosed at column 9, lines 1-9.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing for operating in the half-duplex and full-duplex modes, as taught by Arbel, for the purpose of initial training the echo cancellers and after initial training allowing for simultaneous conversation for both near and far-end talkers.

Regarding **claim 6**, Acree discloses everything claimed as applied above (see claim 5), in addition, Acree discloses a headset microphone, which reads on claimed "speakerphone". Further, the headset microphone combination inherently comprises an echo cancellation circuit as evidenced by the fact that one of ordinary skill in the art would have recognized that problems similar to those occurring with echo cancellation also occur with noise cancellation during headphone reception in a headset with microphone. Consequently in the sequel the meaning of the work "echo canceller" is to comprise the meaning of the word "noise canceller". However, Acree fails to disclose an audio echo canceller. However, the examiner maintains that it was well known in the art to provide an audio echo canceller, as taught by Arbel.

In addition, Arbel discloses a room echo canceller (30) which reads on claimed "audio echo canceller", as disclosed at column 4, lines 24-49 and exhibited in figure 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing an audio echo

canceller, as taught by Arbell, for the purpose of canceling audio noise that results from the acoustic coupling between the microphone and the loudspeaker.

Regarding **claim 7**, Acree and Arbel disclose everything claimed as applied above (see claim 6), however, the combination fails to disclose wherein the audio echo canceller is an algorithm included in a digital signal processor. However, the examiner maintains that it was well known in the art to provide wherein the audio echo canceller is an algorithm included in a digital signal processor, as taught by Arbel.

In addition, Abrel discloses wherein the room echo canceller (30) is an algorithm included in a digital signal processor, as disclosed at column 4, lines 4-37 and exhibited in figures 1 and 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination by specifically providing wherein the audio echo canceller is an algorithm included in a digital signal processor, as taught by Arbel, for the purpose of canceling audio noise that results from the acoustic coupling between the microphone and the loudspeaker.

Regarding **claim 8**, Acree and Arbel disclose everything claimed as applied above (see claim 7), however, the combination fails to disclose a hybrid echo canceller. However, the examiner maintains that it was well known in the art to provide a hybrid echo canceller, as taught by Arbel.

In addition, Abrel discloses a trunk echo canceller (32), which reads on claimed "hybrid echo canceler", as disclosed at column 4, lines 24-37 and exhibited in figure 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination by specifically providing a hybrid echo, as taught by Arbel, for the purpose of canceling electrical noise that results from the apparatus coupling to the base.

Regarding **claim 9**, Acree discloses everything claimed as applied above (see claim 1), however, Acree fails to disclose a first codec, an echo canceller, and a second codec. However, the examiner maintains that it was well known in the art to provide a first codec, an echo canceller, and a second codec, as taught by Arbel.

In addition, Arbel discloses a first codec (62) and echo canceller (56), and a second codec (62), as disclosed at column 3, line 53 through column 4, line 13 and exhibited in figure 1; column 12, line 50 through column 13, line 61 and exhibited in figure 5A.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing a first codec, an echo canceller, and a second codec, as taught by Arbel, for the purpose of improving performance in a full-duplex speakerphone relating to A-Law and Mu-Law quantization and linearity errors.

Regarding **claims 10 and 11**, Acree and Arbel discloses everything claimed as applied above (see claim 9), in addition claims 10 and 11 are interpreted and thus rejected for the reasons set forth above in the rejection of claims 6 and 8 respectively.

3. **Claims 14, 17, 18, 21 and 22** rejected under 35 U.S.C. 103(a) as being unpatentable over Acree in view of Papadopoulos (United State Patent 5,623,544).

Regarding **claim 14**, Acree discloses everything claimed as applied above (see claim 1), however, Acree fails to disclose a switch with first position for connecting the handset to the handset jack and a second position for connecting the audio module to the handset jack. However, the examiner maintains that it was well known in the art to provide a switch with first position for connecting the handset to the handset jack and a second position for connecting the audio module to the handset jack, as taught by Papadopoulos.

In a similar field of endeavor Papadopoulos discloses a telephone headset interface circuit. In addition, Papadopoulos discloses a switch (26) with first position for connecting the handset (40) to the handset jack and a second position for connecting the headset (14), which reads on claimed "audio module" to the handset jack as disclosed at column 4, line 12-19 and exhibited in figure 1; column 10, line 44 through column 11, line 9 and exhibited in figure 6.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing a switch with first position for connecting the handset to the handset jack and a second position for connecting the audio module to the handset jack, as taught by Papadopoulos, for the purpose of connecting alternate devices for voice amplification to the telephone base.

Regarding **claim 17**, Acree discloses everything claimed as applied above (see claim 16), however, Acree fails to disclose amplifying an output of the handset

connection. However, the examiner maintains that it was well known in the art to provide amplifying an output of the handset connection, as taught by Papadopoulos.

In addition, Papadopoulos discloses a transmit/receive amplifier (12), which receives on claimed amplifying", as disclosed at column 10, lines 11-43 and exhibited in figure 5.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing amplifying an output of the handset connection, as taught by Papadopoulos, for the purpose of providing appropriate power to support attachments to the handset jack.

4. ***Claim 15, 24 and 25*** is rejected under 35 U.S.C. 103(a) as being unpatentable over Acree in view of McDuffee (United States Patent 6,002,945).

Regarding ***claim 15***, Acree discloses everything claimed, as applied above, (see claim 1), however, Acree fails to disclose voice pager. However, the examiner maintains that it was well known in the art to provide a voice pager, as taught by McDuffee.

In a similar field of endeavor McDuffee discloses a combination pager and telephone. In addition, McDuffee discloses wherein the telephone incorporates the features of a mobile pager, as disclosed at column 3, lines 56-62.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing a voice pager, as taught by McDuffee, for the purpose of notifying the user of a pending message.

Claims 24 and 25 are interpreted and thus rejected for the reasons set forth above in the rejection of claim 15.

5. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Acree in view of well know prior art (MPEP 2144.03).

Regarding **claim 13**, Acree disclose everything claimed, as applied above, (see claim 1), however, Acree fails to disclose a telephone line interface. However, the examiner takes official notice of the fact that it was well know in the art to provide telephone line interface.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acree by specifically providing a telephone line interface, for the purpose of having a stand alone apparatus.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F. Harold whose telephone number is (703) 306-5836. The examiner can normally be reached on Monday-Friday 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



JFH
December 9, 2002



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